

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (original): A method of diagnosing cancer in a patient comprising assaying a sample of biological fluid from a patient for the presence or absence of survivin, wherein the presence of survivin in the sample indicates that the patient has cancer.

Claim 2 (original): The method of claim 1, wherein the biological fluid is urine or blood serum.

Claim 3 (original): The method of claim 1, wherein the cancer is any cancer invading the genitourinary tract.

Claim 4 (original): The method for claim 3, wherein the genitourinary tract cancer is bladder or prostate cancer.

Claim 5 (original): The method of claim 4, wherein the bladder or prostate cancer is graded as a CIS.

Claim 6 (original): The method of claim 4, wherein the bladder or prostate cancer is any grade or any stage.

Claim 7 (original): The method of claim 1, wherein survivin is detected using an agent selected from the group consisting of antibodies that bind survivin, survivin binding partners, and nucleic acids that hybridize to a nucleic acid encoding survivin.

Claim 8 (original): The method of claim 7, wherein the agent is tagged with a label.

Claim 9 (original): The method of claim 8, wherein the label is a radioactive label, a fluorescent label, an enzyme, or a chemiluminescent tag.

Claim 10 (original): The method of claim 1, wherein survivin is detected by an immunoassay.

Claim 11 (original): The method of claim 10, wherein the immunoassay is an enzyme linked immunosorbent assay or radioimmunoassay.

Claim 12 (original): The method of claim 10, wherein the immunoassay comprises immunoblotting, immunodiffusion, immunoelectrophoresis, or immunoprecipitation.

Claim 13 (original): The method of claim 1, wherein survivin is detected by dot blotting.

Claim 14 (original): The method of claim 13, wherein dot blotting comprises using a Bio-Dot SF module.

Claim 15 (original): The method of claim 1, wherein survivin is detected by nucleic acid hybridization.

Claim 16 (original): The method of claim 15, wherein the nucleic acid hybridization is RT-PCR or Northern blot analysis.

Claim 17 (original): A kit for diagnosis, prognosis, or monitoring cancer, comprising a container for collecting biological fluid from a patient and an agent that detects the presence of survivin in the biological fluid.

Claim 18 (original): The kit of claim 17, wherein the agent is selected from the group consisting of antibodies that bind survivin, survivin binding partners, and nucleic acids that hybridize to the nucleic acid encoding survivin.

Claim 19 (original): The kit of claim 18, wherein the agent is tagged with a label.

Claim 20 (original): The kit of claim 18, wherein the label is a radioactive label, a fluorescent label, an enzyme, or a chemiluminescent tag.

Claim 21 (original): The kit of claim 17, wherein the agent is packaged in an aqueous medium or in lyophilized form.

Claim 22 (original): The kit of claim 17, further comprising a means to analyze the presence of survivin.

Claim 23 (original): The kit of claim 17, wherein the cancer is bladder or prostate cancer.

Claim 24 (original): The kit of claim 17, wherein the biological fluid is urine or blood serum.

Claim 25 (original): A method of determining the grade of a cancer in a patient comprising quantitating the amount of survivin in the sample of biological fluid from a patient and comparing the amount of survivin in the sample with the amount of survivin in control samples to determine the grade of the cancer.

Claim 26 (original): A method of determining the stage of a cancer in a patient comprising quantitating the amount of survivin in the sample of biological fluid from a patient and comparing the amount of survivin in the sample with the amount of survivin in control samples to determine the stage of the cancer.

Claim 27 (original): A method of monitoring cancer in a patient comprising quantitating the amount of survivin in the sample of biological fluid from a patient to determine the grade of the cancer.

Claim 28 (original): The method of claim 1, wherein the biological fluid is selected from the group consisting of prostatic fluid, seminal fluid, whole blood, serum, urine, breast biopsy fluid, gastrointestinal fluid, and vaginal fluid.

Claim 29 (original): The method of claim 1, wherein the cancer is any cancer that expresses survivin.

Claim 30 (original): The method of claim 1, wherein the cancer is selected from the group consisting of neuroblastoma, breast cancer, lung cancer, bladder cancer, colorectal cancer, pancreatic cancer, genitourinary tract cancer, prostate cancer, renal cancer, and bladder cancer.

Claim 31 (original): The method of claim 1, wherein the cancer is new onset cancer or recurrent cancer.

Claim 32 (new): The method of claim 25, wherein the amount of survivin is quantitated by detecting survivin RNA.

Claim 33 (new): The method of claim 32, wherein the survivin RNA is detected by nucleic acid hybridization.

Claim 34 (new): The method of claim 33, wherein the nucleic acid hybridization is RT-PCR or Northern blot analysis.

Claim 35 (new): The method of claim 26, wherein the amount of survivin is quantitated by detecting survivin RNA.

Claim 36 (new): The method of claim 35, wherein the survivin RNA is detected by nucleic acid hybridization.

Claim 37 (new): The method of claim 36, wherein the nucleic acid hybridization is RT-PCR or Northern blot analysis.

Claim 38 (new): The method of claim 27, wherein the amount of survivin is quantitated by detecting survivin RNA.

Claim 39 (new): The method of claim 38, wherein the survivin RNA is detected by nucleic acid hybridization.

Claim 40 (new): The method of claim 39, wherein the nucleic acid hybridization is RT-PCR or Northern blot analysis.

Claim 41 (new): The method of claim 1, wherein the presence or absence of survivin is detected by detecting the presence or absence of survivin RNA.

Claim 42 (new): The kit of claim 17, wherein the presence of survivin is detected by detecting survivin RNA.